

WORLD INTELLECTUAL PROPERTY ORGANIZATION



International Bureau

(51) International Patent Classification ⁶ :		(11) International Publication Number:	WO 99/63068
C12N 9/32, 15/29, 15/55, 15/67	A1	(43) International Publication Date:	9 December 1999 (09.12.99)

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(21) International Application Number: PCT/AU99/00434

(22) International Filing Date: 4 June 1999 (04.06.99)

(30) Priority Data:

PP 3901	4 June 1998 (04.06.98)	ΑU
PP 3903	4 June 1998 (04.06.98)	ΑU
PP 6169	25 September 1998 (25.09.98)	ΑU
PP 6174	25 September 1998 (25.09.98)	ΑU

(71) Applicant (for all designated States except US): THE UNIVER-SITY OF QUEENSLAND [AU/AU]; St. Lucia, QLD 4067 (AU).

(72) Inventor; and

[75] Inventor/Applicant (for US only): CARROLL, Bernard, John [AU/AU]; Unit 2, 1 Bryce Street, Moffat Beach, QLD 4551 (AU).

(74) Agents: HUGHES, E., John, L. et al.; Davies Collison Cave, 1 Little Collins Street, Melbourne, VIC 3000 (AU). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RŪ, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

(54) Title: PHENOTYPE MODIFYING GENETIC SEQUENCES

(57) Abstract

Nucleic acid molecules capable of modifying phenotypic traits in eukaryotic cells and in particular plant cells. The nucleic acid molecules of the present invention are referred to as "phenotype modifying genetic sequences" or "PMGSs" and may be used to increase and/or stabilise or otherwise facilitate expression of nucleotide sequences being expressed into a translation product or may be used to down regulate by, for example, promoting transcript degradation *via* mechanisms such as co–suppression. The PMGSs may also be used to inhibit, reduce or otherwise down regulate expression of a nucleotide sequence such as a eukaryotic gene, including a pathogen gene, the expression of which, results in an undesired phenotype.